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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PEREZ GUTIERREZ, RAFAEL

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,268

Applicant(s)

Wenzel et al.

Examiner

Rafael Perez-Gutierrez

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/20/03</u> | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2686

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office Action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 28, 2005 has been entered. **Claims 1-23** are still pending in the present application.

Drawings

2. The drawings are objected to because of the following minor informality: On **figure 5**, delete "HOME AGENT 3" in order to provide clarity and precision to the figure since it is not involved in the signaling flowchart.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office Action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended". If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must

Art Unit: 2686

be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the Examiner, the Applicant will be notified and informed of any required corrective action in the next Office Action. If a response to the present Office Action fails to include proper drawing corrections, corrected drawings or arguments therefor, the response can be held **NON-RESPONSIVE** and/or the application could be **ABANDONED** since the objections/corrections to the drawings are no longer held in abeyance.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

Art Unit: 2686

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. **Claims 1, 7-9, 15, and 21-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ton (U.S. Patent Application Publication # 2002/0067704 A1)**, of record, in view of **Perkins ("IP Mobility Support")**, cited by the Applicant.

Regarding **claim 1**, Ton discloses method for registering a subscriber unit with a home agent in a cellular system (A cellular system incorporating data communications packet switched networks and that deploys several home agents and a subscriber unit or Mobile Node; *Page 2, Paragraph 19; Figs. 2-5*), the method comprising:

storing addresses for a plurality of home agents in the subscriber unit (Wherein the cellular system/network provides a list of Home Agents attached to a Mobile IP reply message (Mobile IP RRP) through which the subscriber unit may register, and subsequently the subscriber unit stores said list of alternate Home Agents for redundancy support; *Pages 2-3, Paragraph 23*

Art Unit: 2686

and 28; Page 5, Paragraphs 60-62), wherein the plurality of home agents includes a primary home agent and a plurality of secondary home agent (Wherein the subscriber unit is statically configured to a primary Home Agent for registration and in case of failure, the network provides a list of secondary Home Agents through which the subscriber unit may register, or in an alternate embodiment the list is statically configured as well in the subscriber unit if no modifications are made in the system/network mobility agents; *Pages 2-3, Paragraphs 23-26 and 28; Page 4, Paragraphs 55-57; Page 5; Paragraphs 60-62*);

attempting registration with the primary home agent (figure 1);

failing to achieve registration with the primary home agent (The subscriber unit is statically configured to attempt registration with a given #1 Home Agent, HA1; *Page 3, Paragraph 36 and 40; Page 4, Paragraph 44; Page 6, Paragraph 81*);

the subscriber unit selecting a secondary home agent from the plurality of secondary home agents in an attempt to balance load among the plurality of secondary home agents (The mobile node attempting registration with a primary Home Agent HA1, subsequently the network attempting to balanced the load between different or secondary home agents, and through the network selecting or choosing a home agent having a lower load; *Page 3, Paragraph 40*); and

attempting registration with the secondary home agent (Wherein the subscriber unit selects and attempts registration with a secondary home agent due to failure when attempting registration with primary home agent; *Page 3, Paragraph 40; Page 5, Paragraphs 63-64; Fig. 1, steps 150 thru 180*).

However, Ton does not specifically discloses storing the addresses prior to the first

Art Unit: 2686

attempt of registration.

In the same field of endeavor, Perkins clearly discloses that a mobile node (subscriber unit) in a Mobile IP communication system can be configured to store IP addresses of one or more home agents (i.e., primary and secondary home agents) for discovering and registration in the system (pages 34 and 35 section 3.6).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store addresses in the subscriber unit prior to registration, as taught by Perkins, in the method disclosed by Ton for the purpose of efficiently achieving registration.

Regarding **claim 7**, and as applied to claim 1, Ton, as modified by Perkins, discloses the aforementioned method, wherein the plurality of addresses for the home agents stored in the subscriber unit is programmed by a service provider prior to delivering the subscriber unit to its subscriber (Wherein the subscriber unit is statically configured to a given Home Agent for primarily registering to it, also describing means for implementing hardware or software redundancy when statically configuring a subscriber unit as an implementation for selecting alternate home agents; *Page 3, Paragraphs 36 and 42; Page 4, Paragraph 55; Page 5, Paragraph 71*/ Mobile node is configured with IP addresses (Perkins; page 34 section 3.6)).

Regarding **claim 8**, and as applied to claim 1, Ton, as modified by Perkins, discloses the aforementioned method, wherein the plurality of addresses for the home agents stored in the subscriber unit is programmed by the service provider using over the air access (Wherein in case of failure attempting registration with a primary home agent, the network which is incorporated in a wireless or cellular system delivers Mobile IP replies to the subscriber unit in a wireless

Art Unit: 2686

fashion so that the subscriber unit can select a from a list of alternate home agents for attempting registration; *Page 4, Paragraphs 55-57; Page 5, Paragraphs 60-62*).

Regarding **claim 9**, and as applied to claim 1, Ton discloses the aforementioned method, wherein at least some of the plurality of addresses for the home agents stored in the subscriber unit is reprogrammed by the service provider using over the air access (Reprogramming means such as the service provider or home network incorporated into a wireless or cellular system replying in a wireless fashion with additional or alternate home agents for the subscriber unit to attempt registration when failure at attempting registration occurs with a primary home agent; *Page 4, Paragraphs 55-57; Pages 5-6, Paragraphs 60-62 and Paragraphs 75-78*).

Regarding **claim 15**, Ton discloses a subscriber unit that operates within a cellular system, the subscriber unit comprising: an antenna; a radio frequency unit coupled to the antenna; and at least one digital processor coupled to the radio frequency unit that executes software instructions (A mobile terminal that comprises the RF features such as an antenna, a radio frequency unit, and a digital processor; *Page 1, Paragraphs 2-3*) causing the subscriber unit to: store addresses for a plurality of home agents in the subscriber unit (Wherein the cellular system/network provides a list of Home Agents attached to a Mobile IP reply message (Mobile IP RRP) through which the subscriber unit may register, and subsequently the subscriber unit stores said list of alternate Home Agents for redundancy support, in which that redundancy support could be handled on a software redundancy implementation; *Pages 2-3, Paragraph 23 and 28; Page 4, Paragraph 55; Page 5, Paragraphs 60-62*), wherein the plurality of home agents includes a primary home agent and at least one secondary home agent (Wherein the

Art Unit: 2686

subscriber unit is statically configured to a primary Home Agent for registration and in case of failure, the network provides a list of secondary Home Agents through which the subscriber unit may register, or in an alternate embodiment the list is statically configured as well in the subscriber unit if no modifications are made in the system/network mobility agents; *Pages 2-3, Paragraphs 23-26 and 28; Page 4, Paragraphs 55-57; Page 5; Paragraphs 60-62*); attempt registration with the primary home agent (The subscriber unit is statically configured to attempt registration with a given #1 Home Agent, HA1; *Page 3, Paragraph 36 and 40; Page 4, Paragraph 44; Page 6, Paragraph 81*); failing to achieve registration with the primary home agent (Wherein the request for registration of the subscriber unit is not completed due to failure of the primary home agent; *Page 3, Paragraphs 38-39; Fig.1, steps 120 thru 140*); select a secondary home agent from the plurality of secondary home agents in an attempt to balance load among the plurality of secondary home agents (The mobile node attempting registration with a primary Home Agent HA1, subsequently the network attempting to balanced the load between different or secondary home agents, and through the network selecting or choosing a home agent having a lower load; *Page 3, Paragraph 40*); and attempt registration with the secondary home agent (Wherein the subscriber unit selects and attempts registration with a secondary home agent due to failure when attempting registration with primary home agent; *Page 3, Paragraph 40; Page 5, Paragraphs 63-64; Fig. 1, steps 150 thru 180*).

However, Ton does not specifically discloses storing the addresses prior to the first attempt of registration.

In the same field of endeavor, Perkins clearly discloses that a mobile node (subscriber

Art Unit: 2686

unit) in a Mobile IP communication system can be configured to store IP addresses of one or more home agents (i.e., primary and secondary home agents) for discovering and registration in the system (pages 34 and 35 section 3.6).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store addresses in the subscriber unit prior to registration, as taught by Perkins, in the unit disclosed by Ton for the purpose of efficiently achieving registration.

Regarding **claim 21**, and as applied to claim 15, Ton, as modified by Perkins, discloses the aforementioned subscriber unit, wherein the plurality of addresses for the home agents stored in the subscriber unit is programmed by a service provider prior to delivering the subscriber unit to its subscriber (Wherein the subscriber unit is statically configured to a given Home Agent for primarily registering to it, also describing means for implementing hardware or software redundancy when statically configuring a subscriber unit as an implementation for selecting alternate home agents; *Page 3, Paragraphs 36 and 42; Page 4, Paragraph 55; Page 5, Paragraph 71/ Mobile node is configured with IP addresses (Perkins page 34 section 3.6)).*

Regarding **claim 22**, and as applied to claim 15, Ton, as modified by Perkins, discloses the aforementioned subscriber unit, wherein the plurality of addresses for the home agents stored in the subscriber unit is programmed by the service provider using over the air access (Wherein in case of failure attempting registration with a primary home agent, the network which is incorporated in a wireless or cellular system delivers Mobile IP replies to the subscriber unit in a wireless fashion so that the subscriber unit can select a from a list of alternate home agents for attempting registration; *Page 4, Paragraphs 55-57; Page 5, Paragraphs 60-62).*

Art Unit: 2686

Regarding **claim 23**, and as applied to claim 15, Ton, as modified by Perkins, discloses the aforementioned subscriber unit, wherein at least some of the plurality of addresses for the home agents stored in the subscriber unit is reprogrammed by the service provider using over the air access (Reprogramming means such as the service provider or home network incorporated into a wireless or cellular system replying in a wireless fashion with additional or alternate home agents for the subscriber unit to attempt registration when failure at attempting registration occurs with a primary home agent; *Page 4, Paragraphs 55-57; Pages 5-6, Paragraphs 60-62 and Paragraphs 75-78*).

6. **Claims 2, 3, 10, 11, 16, and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ton (U.S. Patent Application Publication # 2002/0067704 A1)** in view of **Perkins (“IP Mobility Support”)** as applied to **claims 1 and 15 above**, and further in view of **Troxel et al. (U.S. Patent Application Publication # 2002/0078238 A1)**.

Regarding **claim 2**, and as applied to claim 1, Ton, as modified by Perkins, discloses the aforementioned method further comprising: the subscriber unit rank ordering the plurality of secondary home agents into at least a first secondary home agent and a second secondary home agent (Wherein the plurality of secondary home agents are ranked, so when one registration attempt fails with the current home agent, the next secondary home agent becomes the new primary home agent changing its rank to 1; *Page 6, Paragraph 82*). Ton, as modified by Perkins, fails to clearly specify the subscriber unit rank ordering the plurality of home agents.

In the same field of endeavor, Troxel et al. disclose a method for a communication

Art Unit: 2686

network wherein a mobile node ranks foreign agents based on several factors such as services and capacity (*Page 4, Paragraph 51*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ton's, as modified by Perkins, method for rank ordering a plurality of secondary home agents to include means for rank ordering the home agents at a mobile node as taught by Troxel et al. for the purpose of relaying and assisting network management decision procedures, thus setting up a faster registration for a particular subscriber.

Regarding **claim 3**, and as applied to claim 2, Ton, as modified by Perkins and Troxel et al., discloses the aforementioned method. In addition Ton disclose the aforementioned method further comprising: attempting registration with the first secondary home agent (Wherein the subscriber unit attempts registration with an alternate or first secondary Home Agent, HA2; *Page 3, Paragraph 36 and 40; Page 4, Paragraph 44; Page 6, Paragraph 81; Page 4, Paragraphs 36 and 40; Page 5, Paragraphs 64-65*); failing to achieve registration with the first secondary home agent (Wherein the subscriber unit selects and attempts registration with a secondary home agent due to failure when attempting registration with a previous home agent; *Page 3, Paragraph 40; Page 5, Paragraphs 63-64; Fig. 1, steps 150 thru 180*); and attempting registration with the second secondary home agent (Wherein the objective of the invention is to provide alternate home agents in case of failure when attempting registration with a current home agent, subsequently attempting registration if such consecutive failure occurs during the process, therefore the subscriber unit selects and attempts registration with a second secondary home agent due to failure when attempting registration with a previous home agent; *Page 3,*

Art Unit: 2686

Paragraphs 36 and 40; Page 5, Paragraphs 63-64; Fig. 1, steps 150 thru 180).

Regarding **claim 10**, Ton discloses a method for registering a subscriber unit with a home agent in a cellular system (A cellular system incorporating data communications packet switched networks and that deploys several home agents and a subscriber unit or Mobile Node; *Page 2, Paragraph 19; Figs. 2-5*), the method comprising: storing addresses for a plurality of home agents in the subscriber unit (Wherein the cellular system/network provides a list of Home Agents attached to a Mobile IP reply message (Mobile IP RRP) through which the subscriber unit may register, and subsequently the subscriber unit stores said list of alternate Home Agents for redundancy support; *Pages 2-3, Paragraph 23 and 28; Page 5, Paragraphs 60-62*), wherein the plurality of home agents includes a primary home agent and a plurality of secondary home agents (Wherein the subscriber unit is statically configured to a primary Home Agent for registration and in case of failure, the network provides a list of secondary Home Agents through which the subscriber unit may register, or in an alternate embodiment the list is statically configured as well in the subscriber unit if no modifications are made in the system/network mobility agents; *Pages 2-3, Paragraphs 23-26 and 28; Page 4, Paragraphs 55-57; Page 5; Paragraphs 60-62*); attempting registration with the primary home agent (The subscriber unit is statically configured to attempt registration with a given #1 Home Agent, HA1; *Page 3, Paragraph 36 and 40; Page 4, Paragraph 44; Page 6, Paragraph 81*); failing to achieve registration with the primary home agent (Wherein the request for registration of the subscriber unit is not completed due to failure of the primary home agent; *Page 3, Paragraphs 38-39; Fig.1, steps 120 thru 140*); rank ordering the plurality of secondary home agents into at least a

Art Unit: 2686

first secondary home agent and a second secondary home agent (Wherein the plurality of secondary home agents are ranked, so when one registration attempt fails with the current home agent, the next secondary home agent becomes the new primary home agent changing its rank to 1; *Page 6, Paragraph 82*) in an attempt to balance the load (The mobile node attempting registration with a primary Home Agent HA1, subsequently the network attempting to balanced the load between different or secondary home agents, and through the network selecting or choosing a home agent having a lower load; *Page 3, Paragraph 40*); and attempting registration with the first secondary home agent (Wherein the subscriber unit selects and attempts registration with a secondary home agent due to failure when attempting registration with primary home agent; *Page 3, Paragraph 40; Page 5, Paragraphs 63-64; Fig. 1, steps 150 thru 180*).

However, Ton does not specifically discloses storing the addresses prior to the first attempt of registration.

In the same field of endeavor, Perkins clearly discloses that a mobile node (subscriber unit) in a Mobile IP communication system can be configured to store IP addresses of one or more home agents (i.e., primary and secondary home agents) for discovering and registration in the system (pages 34 and 35 section 3.6).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store addresses in the subscriber unit prior to registration, as taught by Perkins, in the method disclosed by Ton for the purpose of efficiently achieving registration.

Ton, as modified by Perkins, fails to clearly specify the subscriber unit rank ordering the

Art Unit: 2686

plurality of home agents.

In the same field of endeavor, Troxel et al. disclose a method for a communication network wherein a mobile node ranks foreign agents based on several factors such as services and capacity (*Page 4, Paragraph 51*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ton's, as modified by Perkins, method for rank ordering a plurality of secondary home agents to include means for rank ordering the home agents at a mobile node as taught by Troxel et al. for the purpose of relaying and assisting network management decision procedures, thus setting up a faster registration for a particular subscriber.

Regarding **claim 11**, and as applied to claim 10, Ton, as modified by Perkins and Troxel et al., disclose the aforementioned method. In addition Ton discloses the method further comprising: failing to achieve registration with the first secondary home agent (Wherein the subscriber unit selects and attempts registration with a secondary home agent due to failure when attempting registration with a previous home agent; *Page 3, Paragraph 40; Page 5, Paragraphs 63-64; Fig. 1, steps 150 thru 180*); and attempting registration with the second secondary home agent (Wherein the objective of the invention is to provide alternate home agents in case of failure when attempting registration with a current home agent, subsequently attempting registration if such consecutive failure occurs during the process, therefore the subscriber unit selects and attempts registration with a second secondary home agent due to failure when attempting registration with a previous home agent; *Page 3, Paragraphs 36 and 40; Page 5, Paragraphs 63-64; Fig. 1, steps 150 thru 180*).

Art Unit: 2686

Regarding **claim 16**, and as applied to claim 15, Ton, as modified by Perkins, discloses the aforementioned subscriber unit, wherein execution of software instructions further causes the subscriber unit to: rank order the plurality of secondary home agents into at least a first secondary home agent and a second secondary home agent (Wherein the plurality of secondary home agents are ranked, so when one registration attempt fails with the current home agent, the next secondary home agent becomes the new primary home agent changing its rank to 1; *Page 6, Paragraph 82*). Ton, as modified by Perkins, fails to clearly specify the subscriber unit rank ordering the plurality of home agents.

In the same field of endeavor, Troxel et al. disclose a method for a communication network wherein a mobile node ranks foreign agents based on several factors such as services and capacity (*Page 4, Paragraph 51*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ton's, as modified by Perkins, method for rank ordering a plurality of secondary home agents to include means for rank ordering the home agents at a mobile node as taught by Troxel et al. for the purpose of relaying and assisting network management decision procedures, thus setting up a faster registration for a particular subscriber.

Regarding **claim 17**, and as applied to claim 16, Ton, as modified by Perkins and Troxel et al., disclose the aforementioned subscriber unit. In addition Ton disclose attempting registration with the first secondary home agent (Wherein the subscriber unit attempts registration with an alternate or first secondary Home Agent, HA2; *Page 3, Paragraph 36 and 40; Page 4, Paragraph 44; Page 6, Paragraph 81; Page 4, Paragraphs 36 and 40; Page 5,*

Art Unit: 2686

Paragraphs 64-65); fail to achieve registration with the first secondary home agent (Wherein the subscriber unit selects and attempts registration with a secondary home agent due to failure when attempting registration with a previous home agent; *Page 3, Paragraph 40; Page 5, Paragraphs 63-64; Fig. 1, steps 150 thru 180*); and attempt registration with the second secondary home agent (Wherein the objective of the invention is to provide alternate home agents in case of failure when attempting registration with a current home agent, subsequently attempting registration if such consecutive failure occurs during the process, therefore the subscriber unit selects and attempts registration with a second secondary home agent due to failure when attempting registration with a previous home agent; *Page 3, Paragraphs 36 and 40; Page 5, Paragraphs 63-64; Fig. 1, steps 150 thru 180*).

7. **Claims 4 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ton (U.S. Patent Application Publication # 2002/0067704 A1)** in view of **Perkins (“IP Mobility Support”)** and further in view of **Troxel et al. (U.S. Patent Application Publication # 2002/0078238 A1)** as applied to **claims 2 and 10** above, further in view of **Jue et al. (“Design and Analysis of Replicated Server Architecture for Supporting IP-Host Mobility”)**, even further in view of **Tiedemann et al. (U.S. Patent # 6,615,050 B1)**.

Regarding **claim 4**, and as applied to claim 2, Ton, as modified by Perkins and Troxel et al., discloses the aforementioned method wherein the subscriber unit rank orders the plurality of secondary home agents into at least a first secondary home agent and a second secondary home agent. Ton, as modified by Perkins and Troxel et al., fails to clearly specify wherein said rank

Art Unit: 2686

ordering comprises: the subscriber generating a random number; and using the random number to rank order the plurality of secondary home agents.

In the same field of endeavor, Jue et al. disclose a method for rank ordering a plurality of secondary home agents, wherein the method comprises: generating a random number; and using the random number to rank order the plurality of secondary home agents (A method for randomly selecting home agents for achieving higher load balancing gains; *Page 20, cols. 1 and 2; Page 21, col. 2; Page 22, col. 1; Page 23, col. 1*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ton's, as modified by Perkins and Troxel et al., method for rank ordering a plurality of secondary home agents, to include features such as generating a random number and using that number to rank order the plurality of home agents in the subscriber unit as taught by Jue et al. for the purpose of, improving performance when balancing load between home agents during a high or irregular traffic volume rate.

Ton, as modified by Perkins, Troxel et al., and Jue et al., fails to clearly specify the subscriber unit generating a random number.

In the same field of endeavor, Tiedemann et al. disclose a method for reducing message collision, wherein a mobile station generates a random number (*col. 4, lines 46-62*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ton's, as modified by Perkins, Troxel et al., and Jue et al., method for rank ordering a plurality of secondary home agents, to generate a random number at the mobile station as taught by Tiedemann et al. for the purpose of delaying information broadcast at

Art Unit: 2686

random intervals, thus avoiding collision.

Regarding **claim 12**, and as applied to claim 10, Ton, as modified by Perkins and Troxel et al., disclose the aforementioned method wherein the subscriber unit rank orders a plurality of secondary home agents into at least a first secondary home agent and a second secondary home agent. Ton, as modified by Perkins and Troxel et al., fails to clearly specify wherein said rank ordering comprises: the subscriber generating a random number; and using the random number to rank order the plurality of secondary home agents.

In the same field of endeavor, Jue et al. disclose a method for rank ordering a plurality of secondary home agents, wherein the method comprises: generating a random number; and using the random number to rank order the plurality of secondary home agents (A method for randomly selecting home agents for achieving higher load balancing gains; *Page 20, cols. 1 and 2; Page 21, col. 2; Page 22, col. 1; Page 23, col. 1*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ton's, as modified by Perkins and Troxel et al., method for rank ordering a plurality of secondary home agents, to include features such as generating a random number and using that number to rank order the plurality of home agents in the subscriber unit as taught by Jue et al. for the purpose of, improving performance when balancing load between home agents during a high or irregular traffic volume rate.

Ton, as modified by Perkins, Troxel et al., and Jue et al., fails to clearly specify the subscriber unit generating a random number.

In the same field of endeavor, Tiedemann et al. disclose a method for reducing message

Art Unit: 2686

collision, wherein a mobile station generates a random number (*col. 4, lines 46-62*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ton's, as modified by Perkins, Troxel et al., and Jue et al., method for rank ordering a plurality of secondary home agents, to generate a random number at the mobile station as taught by Tiedemann et al. for the purpose of delaying information broadcast at random intervals, thus avoiding collision.

8. **Claims 5, 6, 13, and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ton (U.S. Patent Application Publication # 2002/0067704 A1)** in view of **Perkins ("IP Mobility Support")** and further in view of **Troxel et al. (U.S. Patent Application Publication # 2002/0078238 A1)** as applied to **claims 2 and 10 above**, further in view of **Perkins ("Mobile Networking through Mobile IP")**, even further in view of **Fehnel (U.S. Patent # 5,590,092)**.

Regarding **claims 5 and 6**, and as both applied to claim 2, Ton, as modified by Perkins and Troxel et al., disclose the aforementioned method wherein the subscriber unit rank orders the plurality of secondary home agents into at least a first secondary home agent and a second secondary home agent. Ton, as modified by Perkins and Troxel et al., fails to clearly specify wherein said rank ordering comprises: the subscriber unit determining a current particular point or period of time such as a current date; and using the current date to rank order the plurality of secondary home agents.

In the same field of endeavor, Perkins disclose a method for determining a current particular point or period of time such as a current date; and using the current date to rank order

Art Unit: 2686

the plurality of secondary home agents (Wherein the network employs unique identification fields using timestamps when a subscriber unit is requesting registration with a home agent; *Page 62 col. 2 – Page 63, col. 1*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ton's, as modified by Perkins and Troxel et al., method for rank ordering a plurality of secondary home agents, to include features such as determining a current particular period of time such as date for rank ordering a plurality of home agents as taught by Perkins for the purpose of, securing registration requests by differing each registration from another.

Ton, as modified by Perkins, Troxel et al., and Perkins, fails to clearly specify the subscriber unit generating a current data/time.

In the same field of endeavor, Fehnel discloses a cellular radiotelephone comprising means for generating a current time of day (*col. 3, lines 26-39*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ton, as modified by Perkins, Troxel et al., and Perkins, method for rank ordering a plurality of secondary home agents based on current particular period of time such as date to generate the current time at the subscriber unit for the purpose of generating time without the addition of a real time clock chip in the subscriber unit.

Regarding **claims 13 and 14**, and as both applied to claim 10, Ton, as modified by Perkins and Troxel et al., disclose aforementioned method wherein the subscriber unit rank orders the plurality of secondary home agents into at least a first secondary home agent and a

Art Unit: 2686

second secondary home agent. Ton, as modified by Perkins and Troxel et al., fails to clearly specify wherein said rank ordering comprises: the subscriber unit determining a current particular point or period of time such as a current date; and using the current date to rank order the plurality of secondary home agents.

In the same field of endeavor, Perkins disclose a method for determining a current particular point or period of time such as a current date; and using the current date to rank order the plurality of secondary home agents (Wherein the network employs unique identification fields using timestamps when a subscriber unit is requesting registration with a home agent; *Page 62 col. 2 – Page 63, col. 1*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ton's, as modified by Perkins and Troxel et al., method for rank ordering a plurality of secondary home agents, to include features such as determining a current particular period of time such as date for rank ordering a plurality of home agents as taught by Perkins for the purpose of, securing registration requests by differing each registration from another.

Ton, as modified by Perkins, Troxel et al., and Perkins, fails to clearly specify the subscriber unit generating a current data/time.

In the same field of endeavor, Fehnel discloses a cellular radiotelephone comprising means for generating a current time of day (*col. 3, lines 26-39*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ton's, as modified by Perkins, Troxel et al., and Perkins, method for

Art Unit: 2686

rank ordering a plurality of secondary home agents based on current particular period of time such as date to generate the current time at the subscriber unit for the purpose of generating time without the addition of a real time clock chip in the subscriber unit.

9. **Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ton (U.S. Patent Application Publication # 2002/0067704 A1)** in view of **Perkins (“IP Mobility Support”)** and further in view of **Troxel et al. (U.S. Patent Application Publication # 2002/0078238 A1)** as applied to **claim 17** above, further in view of **Jue et al. (“Design and Analysis of Replicated Server Architecture for Supporting IP-Host Mobility”)**.

Regarding **claim 18**, and as applied to claim 17, Ton, as modified by Perkins and Troxel et al., disclose the aforementioned subscriber unit executing software instructions rank ordering a plurality of secondary home agents into at least a first secondary home agent and a second secondary home agent. Ton, as modified by Perkins and Troxel et al., fails to clearly specify wherein said rank ordering comprises: generating a random number; and using the random number to rank order the plurality of secondary home agents.

In the same field of endeavor, Jue et al. disclose a method for rank ordering a plurality of secondary home agents, wherein the method comprises: generating a random number; and using the random number to rank order the plurality of secondary home agents (A method for randomly selecting home agents for achieving higher load balancing gains; *Page 20, cols. 1 and 2; Page 21, col. 2; Page 22, col. 1; Page 23, col. 1*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the

Art Unit: 2686

invention was made to have Ton's, as modified by Perkins and Troxel et al., method for rank ordering a plurality of secondary home agents, to include features such as generating a random number and using that number to rank order the plurality of home agents in the subscriber unit as taught by Jue et al. for the purpose of, improving performance when balancing load between home agents during a high or irregular traffic volume rate.

10. **Claims 19 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ton (U.S. Patent Application Publication # 2002/0067704 A1)** in view of **Perkins ("IP Mobility Support")** and further in view of **Troxel et al. (U.S. Patent Application Publication # 2002/0078238 A1)** as applied to **claim 17** above, further in view of **Perkins ("Mobile Networking through Mobile IP")**.

Regarding **claims 19 and 20**, and as both applied to claim 17, Ton, as modified by Perkins and Troxel et al., disclose aforementioned subscriber unit executing software instructions causing the subscriber unit to rank order the plurality of secondary home agents into at least a first secondary home agent and a second secondary home agent. Ton, as modified by Perkins and Troxel et al., fails to clearly specify wherein said rank ordering comprises: determining a current particular point or period of time such as a current date; and using the current date to rank order the plurality of secondary home agents.

In the same field of endeavor, Perkins disclose a method for determining a current particular point or period of time such as a current date; and using the current date to rank order the plurality of secondary home agents (Wherein the network employs unique identification

Art Unit: 2686

fields using timestamps when a subscriber unit is requesting registration with a home agent;

Page 62 col. 2 – Page 63, col. 1).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ton's, as modified by Perkins and Troxel et al., method for rank ordering a plurality of secondary home agents, to include features such as determining a current particular period of time such as date for rank ordering a plurality of home agents as taught by Perkins for the purpose of, securing registration requests by differing each registration from another.

Response to Arguments

11. Applicant's arguments with respect to **claims 1, 10, and 15** have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Art Unit: 2686

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rafael Perez-Gutierrez whose telephone number is (571) 272-7915. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.


Rafael Perez-Gutierrez

Application/Control Number: 09/981,268

Page 26

Art Unit: 2686

R.P.G./rpg

RAFAEL PEREZ-GUTIERREZ
PRIMARY EXAMINER

September 3, 2005